

IrDA MODULATION  
AND DATA RATE

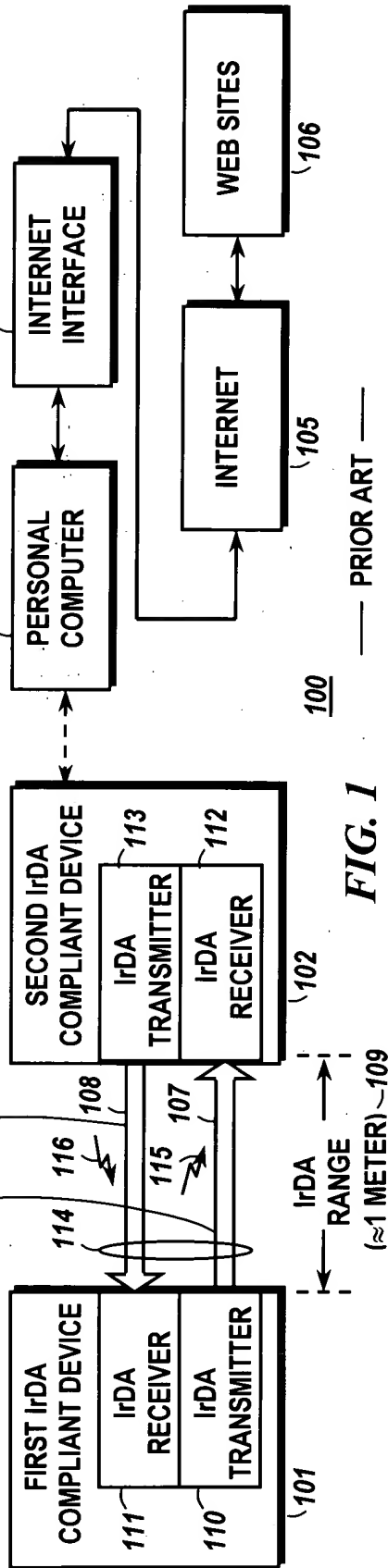


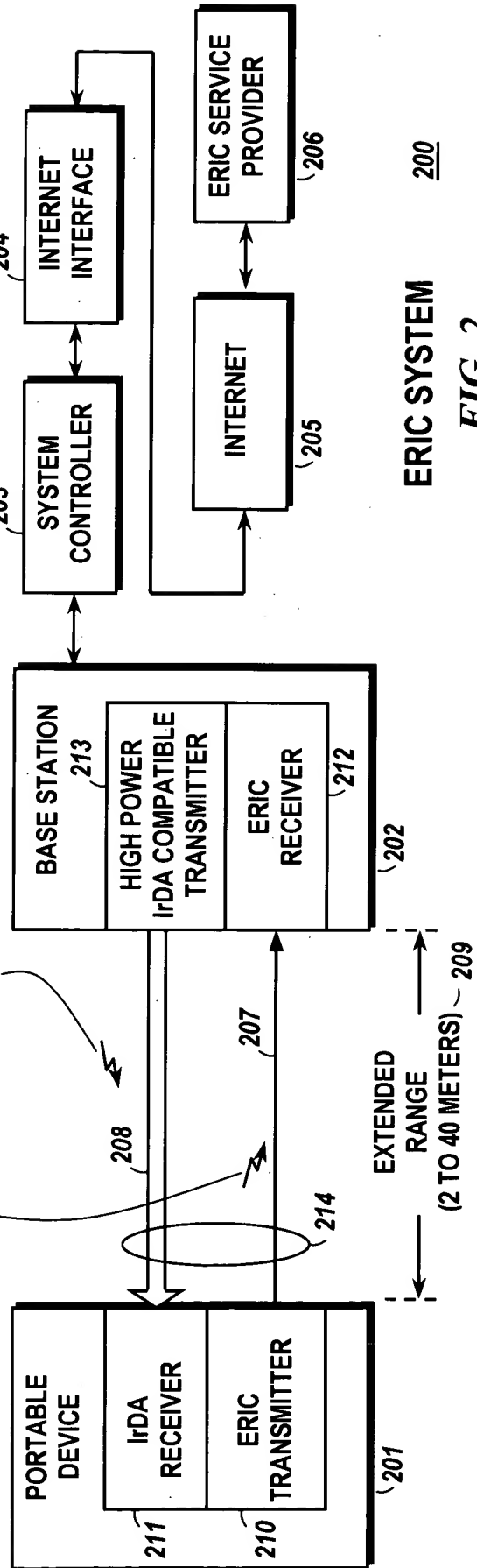
FIG. 1

— PRIOR ART —

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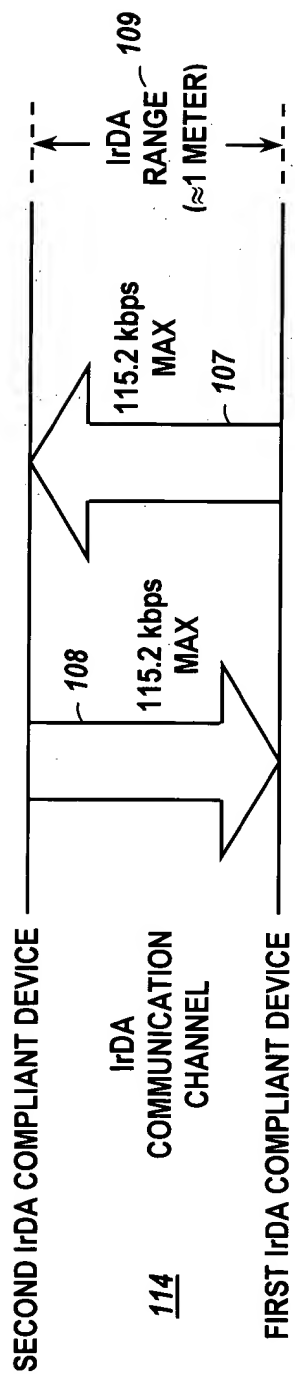
ERIC MODULATION  
AND DATA RATE (10 kbps)  
215 LOW POWER SIGNAL

IrDA MODULATION  
AND DATA RATE (115.2 kbps)  
216 HIGH POWER IrDA SIGNAL

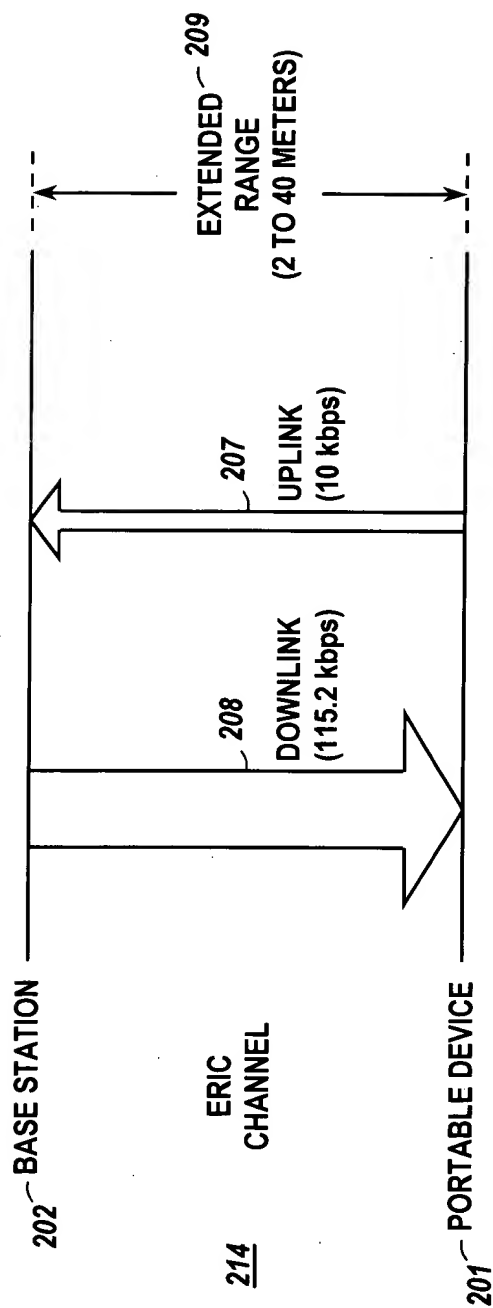


ERIC SYSTEM

FIG. 2



**FIG. 3** — PRIOR ART —



**FIG. 4**

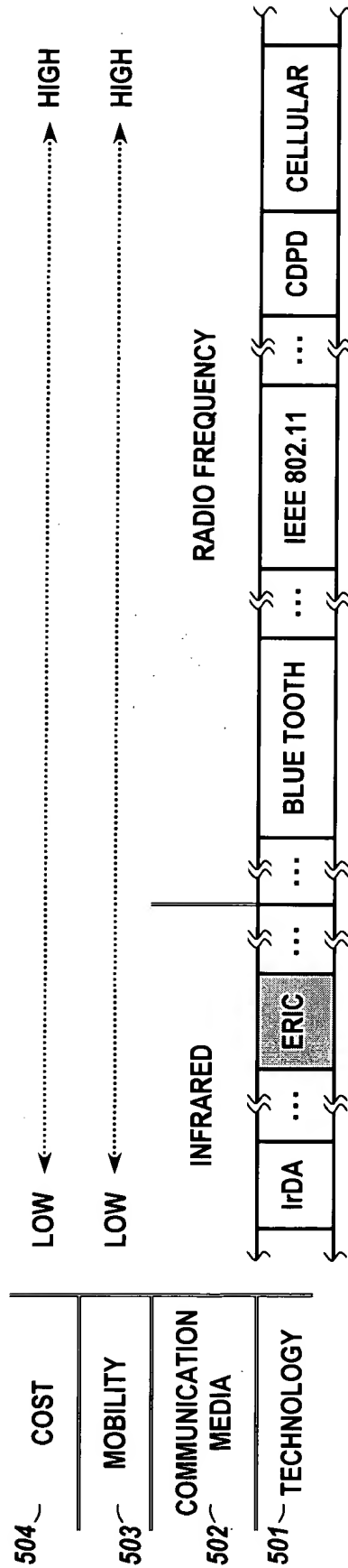


FIG. 5 500

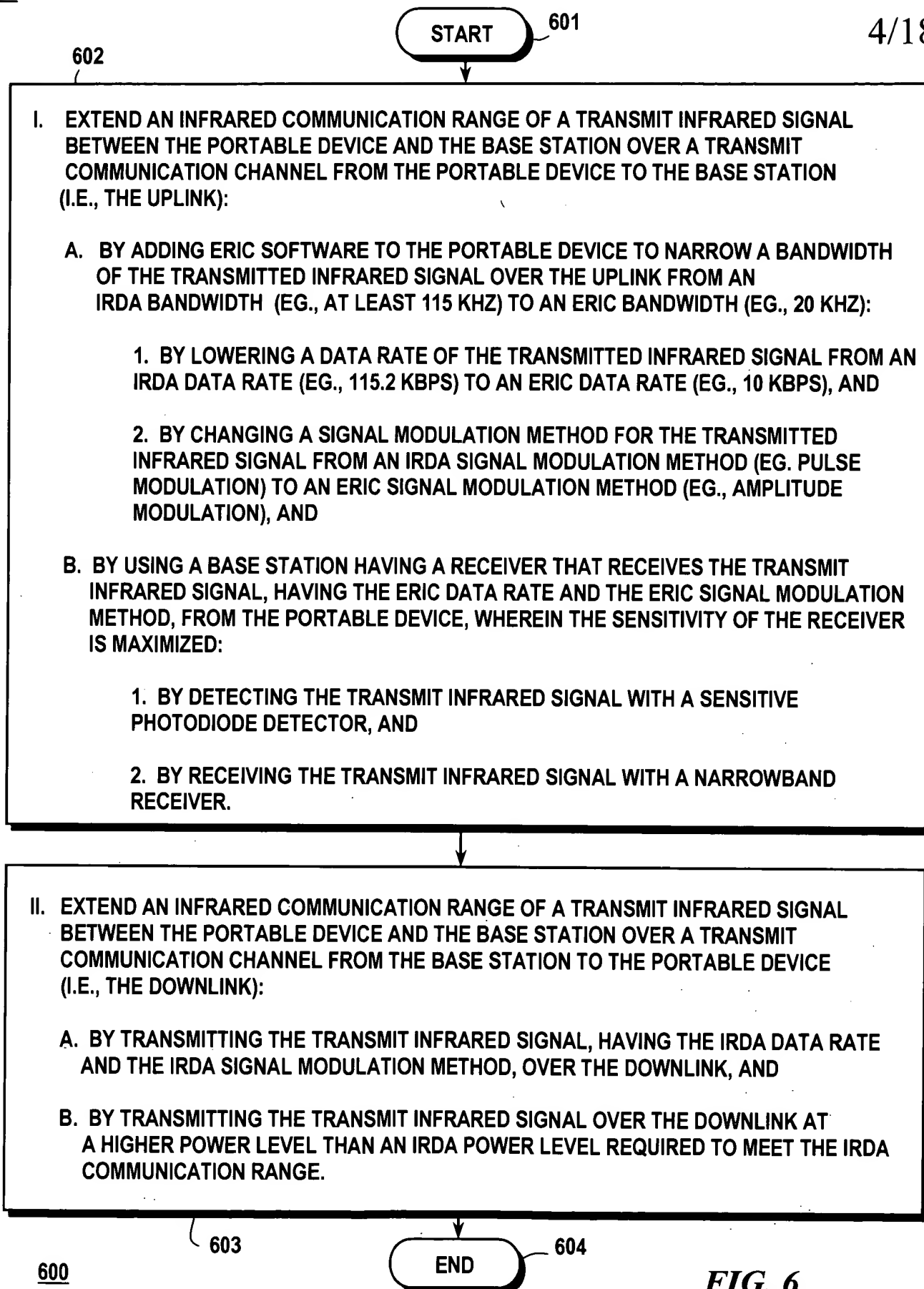
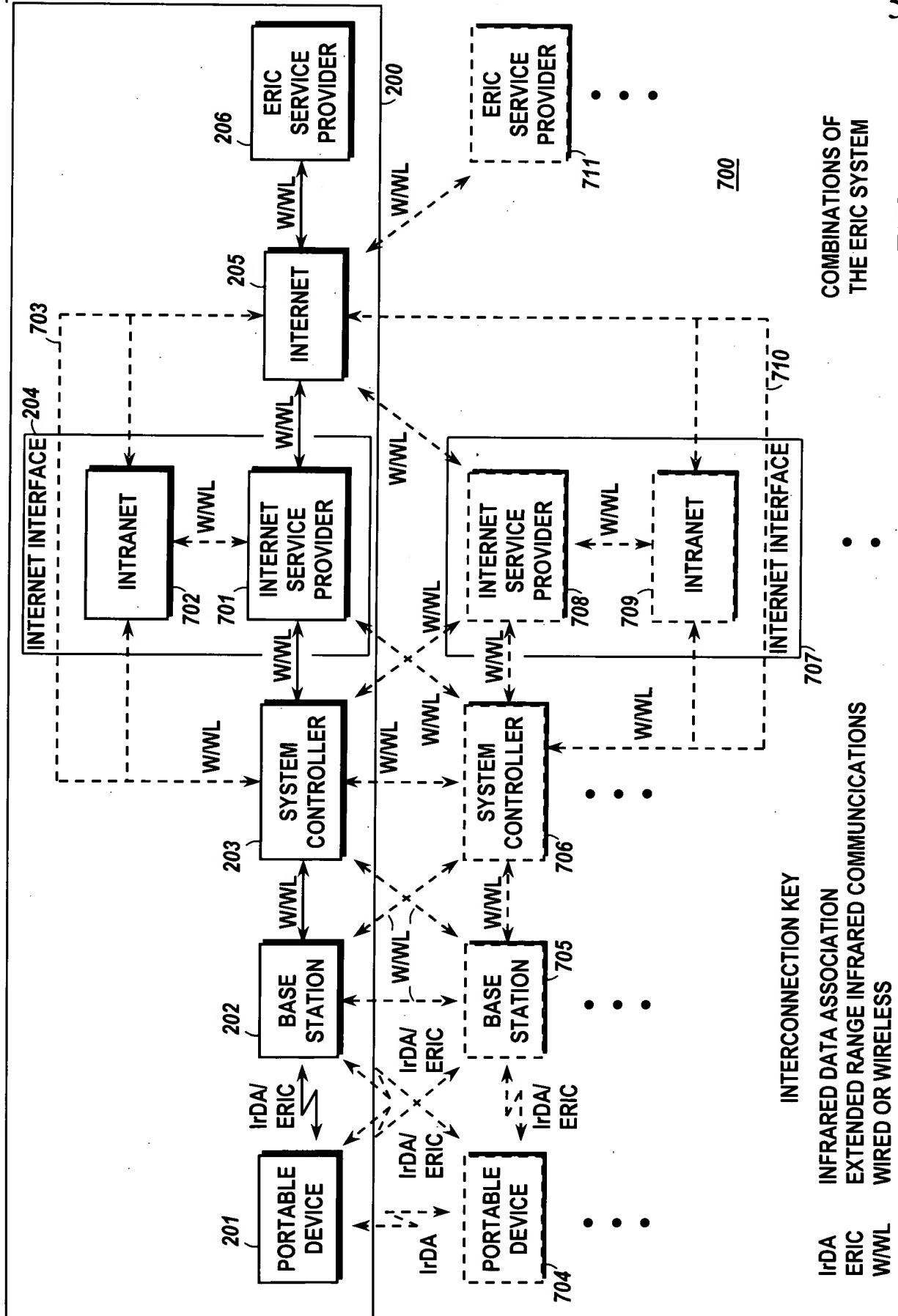


FIG. 6



EXAMPLES	COVERAGE AREA	201	202	203	204
		PORTABLE DEVICE	BASE STATION	SYSTEM CONTROLLER	INTERNET INTERFACE
PRIVATE INDIVIDUAL (HOME/OFFICE)	INDIVIDUAL	1+	1	1	1
SMALL PRIVATE GROUP (CONFERENCE ROOM)	SMALL (UN-NETWORKED)	1+	1	0	0
	SMALL (NETWORKED)	1+ (FEW)	1+ (FEW)	1+ (FEW)	1+
SMALL PUBLIC GROUP (AIRPORT/HOTEL/ENTERPRISE)	MEDIUM	1+ (SEVERAL)	1+ (SEVERAL)	1+ (SEVERAL)	1+ (SEVERAL)
LARGE PUBLIC GROUP (STATE/COUNTRY/WORLD)	LARGE	1+ (MANY)	1+ (MANY)	1+ (MANY)	1+ (MANY)

800

FIG. 8

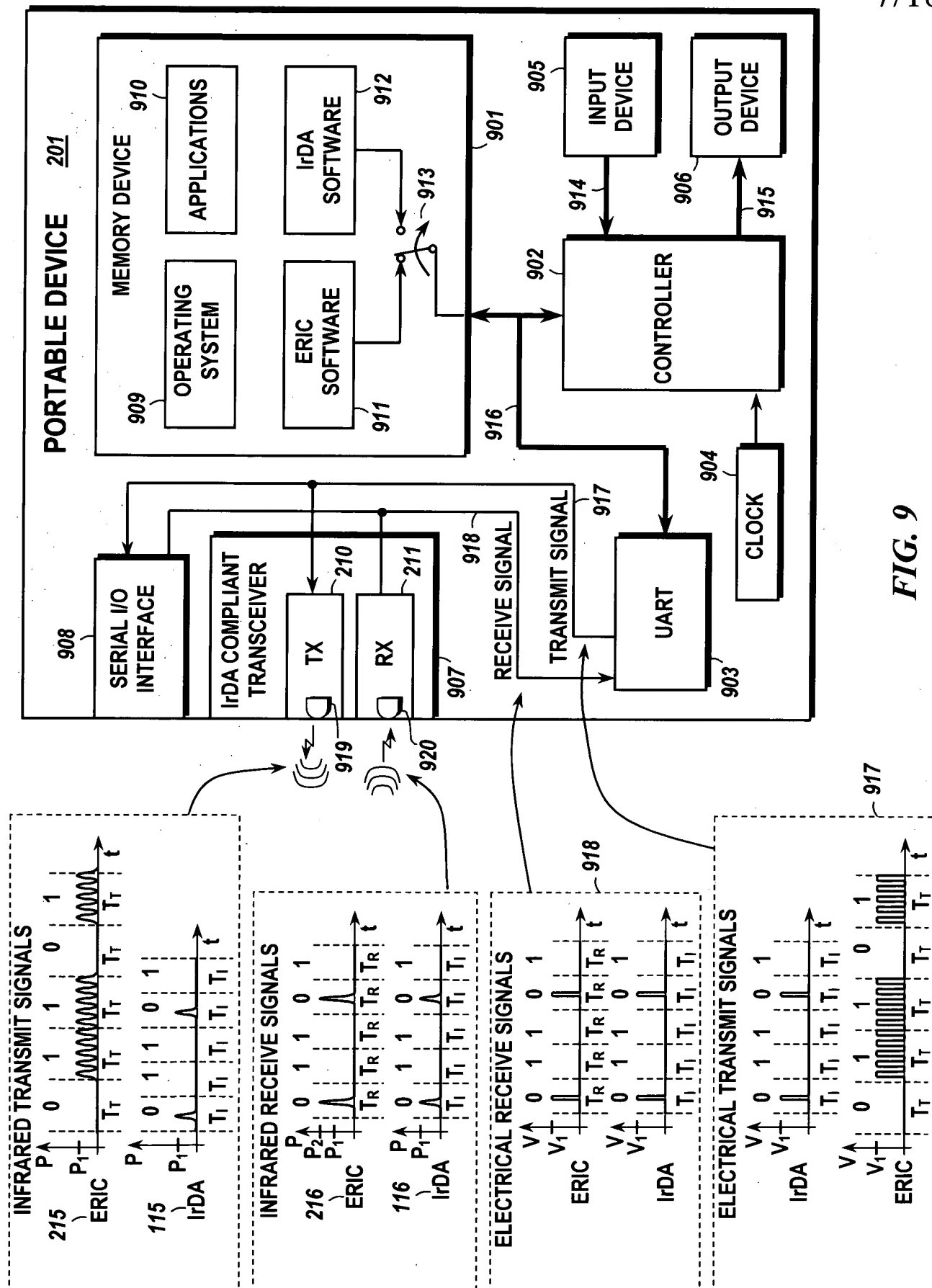


FIG. 9

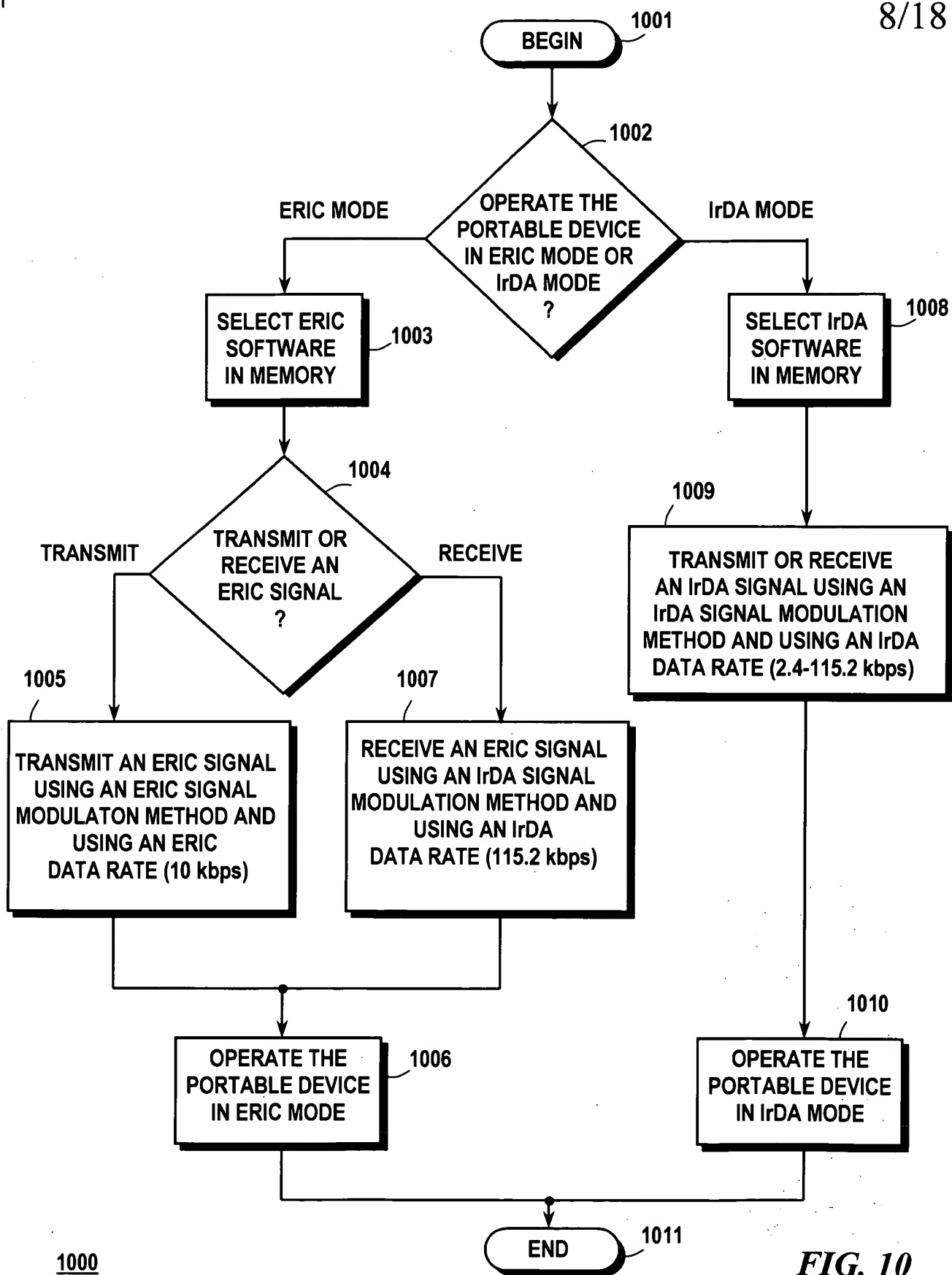


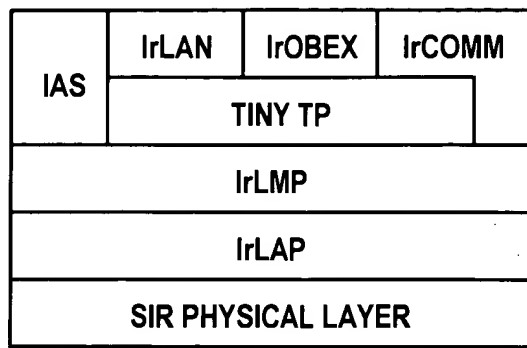
FIG. 10



1100

# IrDA HARDWARE/PROTOCOL STACK

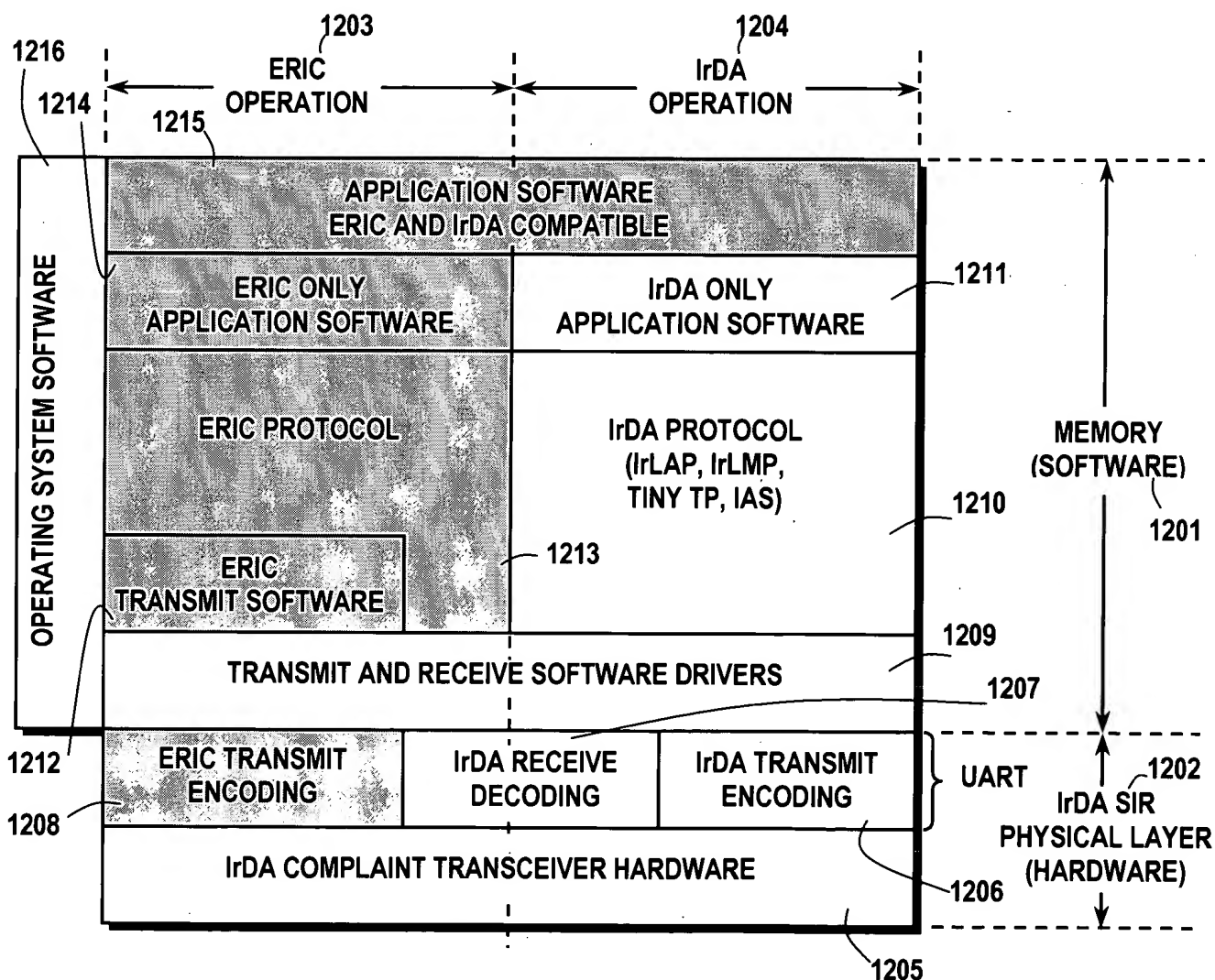
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— PRIOR ART —

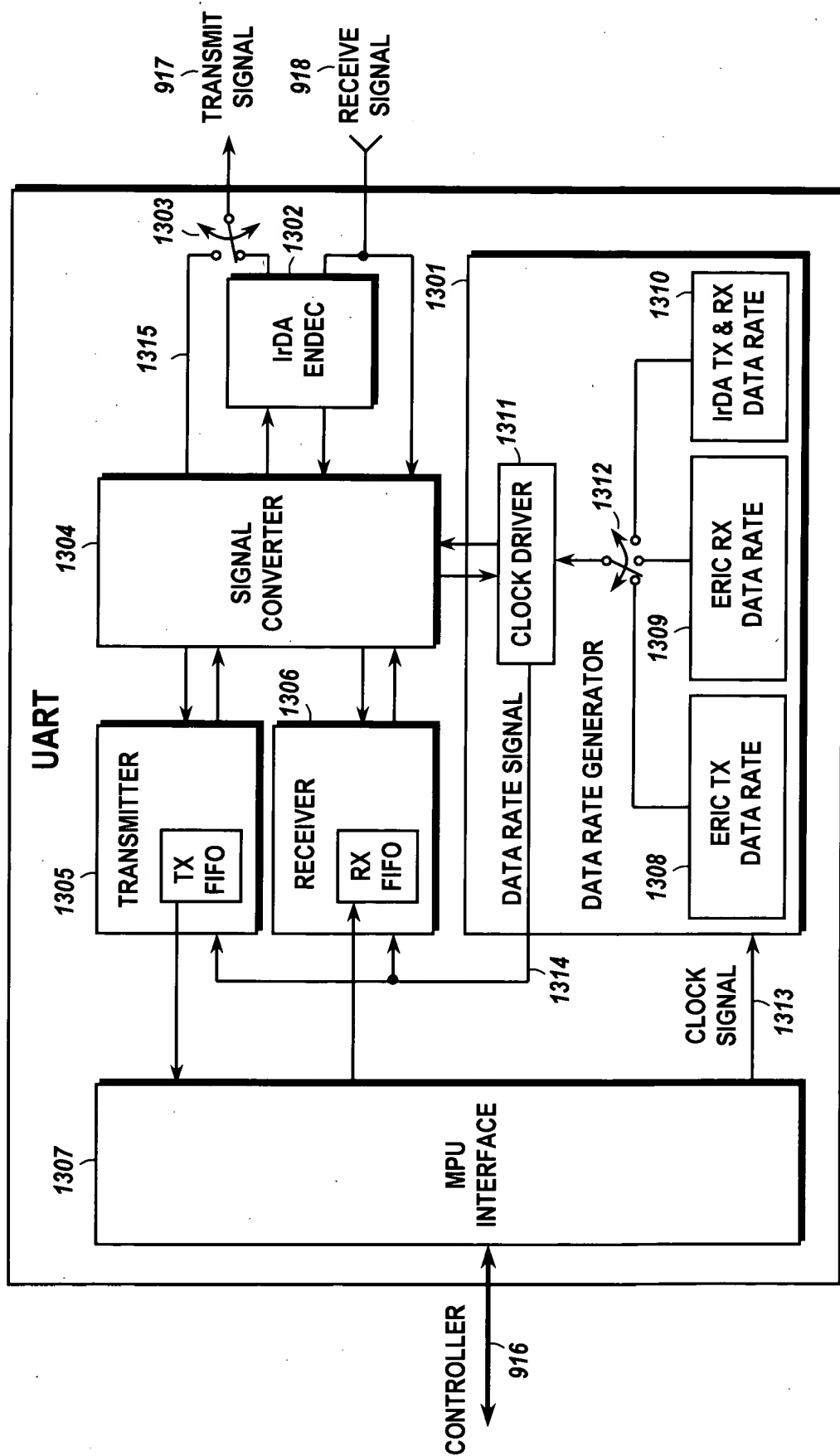
FIG. 11

## ERIC OPEN SYSTEM INTERCONNECTION (OSI) – REFERENCE MODEL



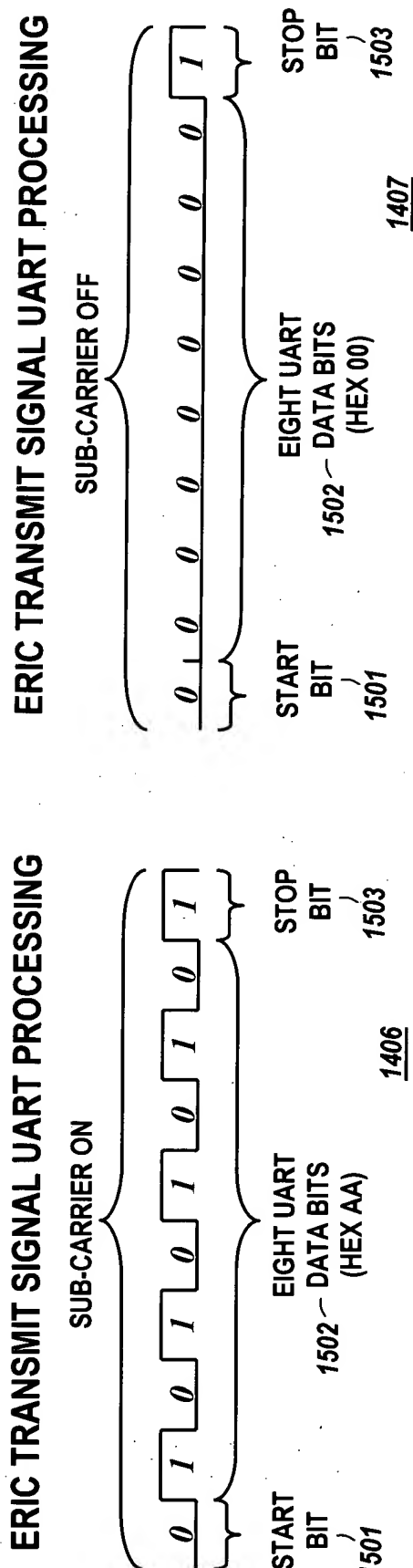
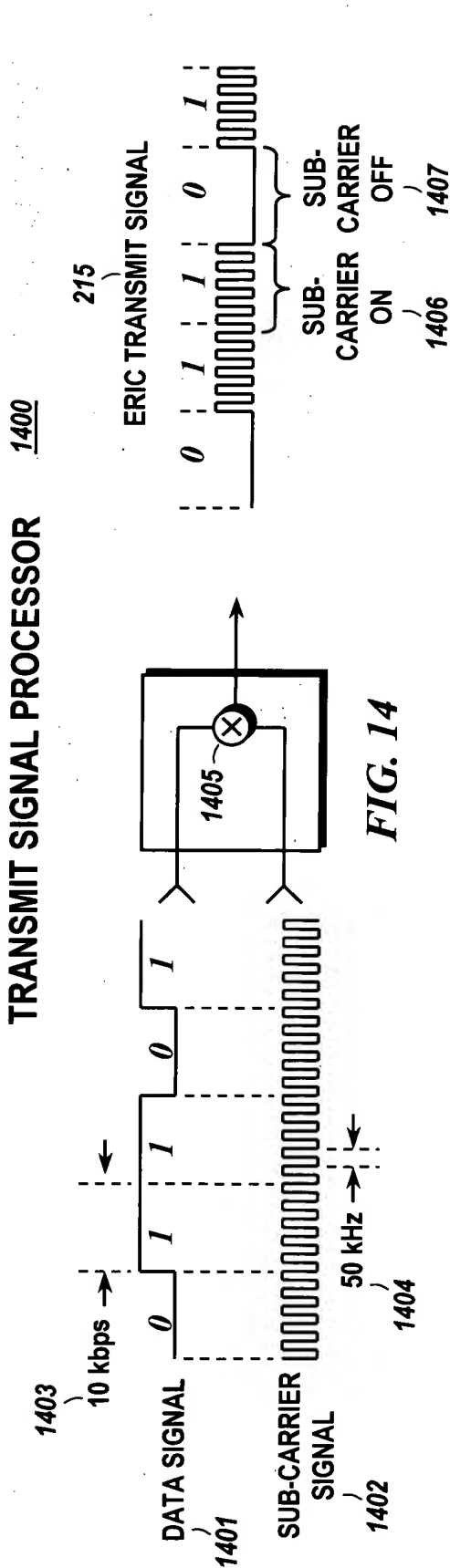
1200

FIG. 12



+

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**FIG. 16**

**FIG. 15**

+

FIG. 17

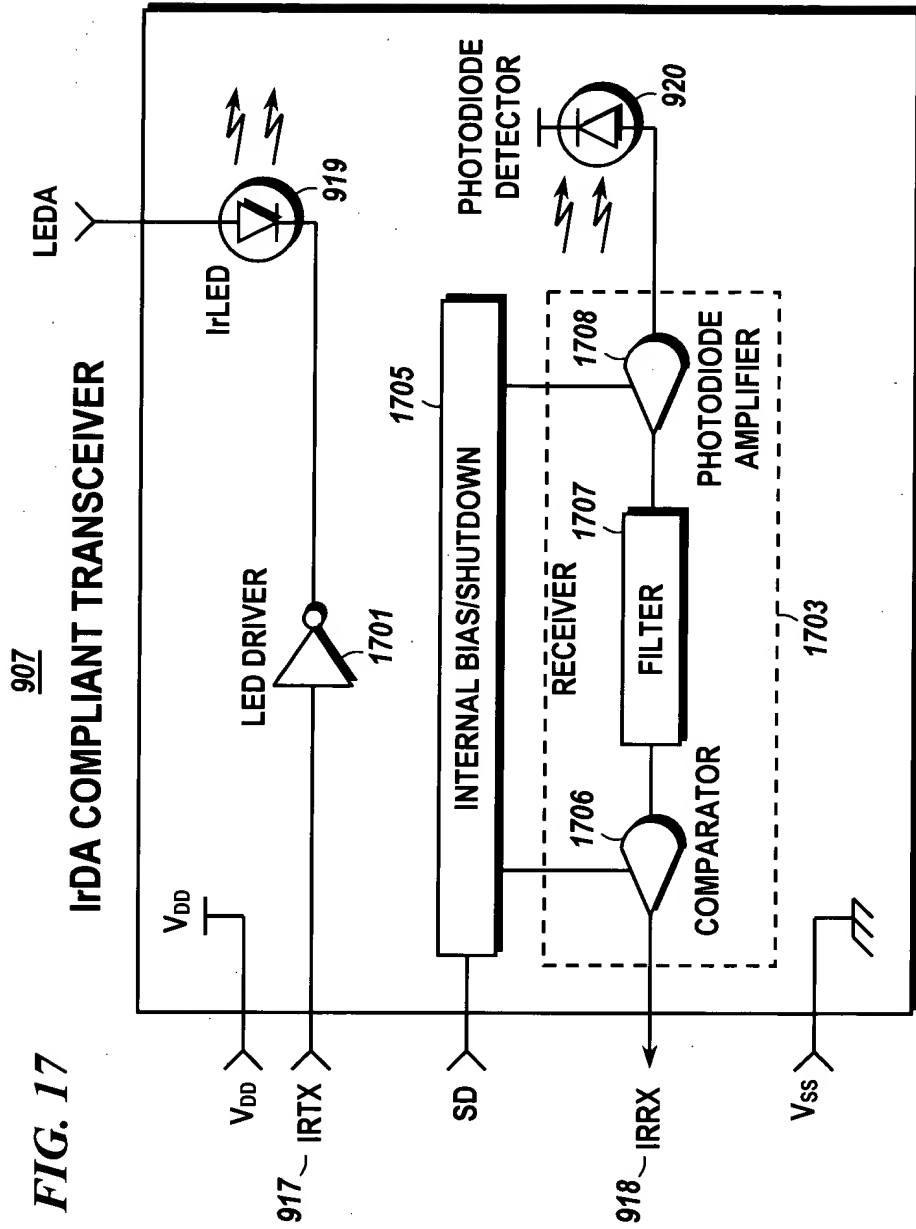
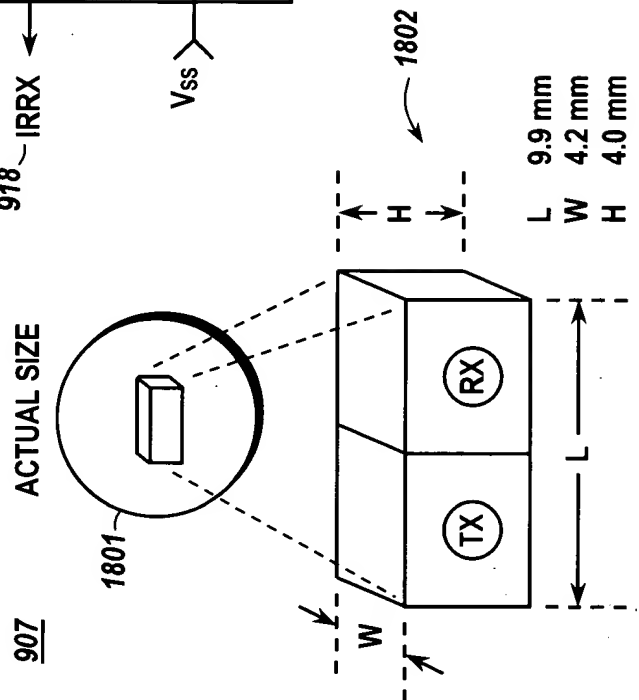
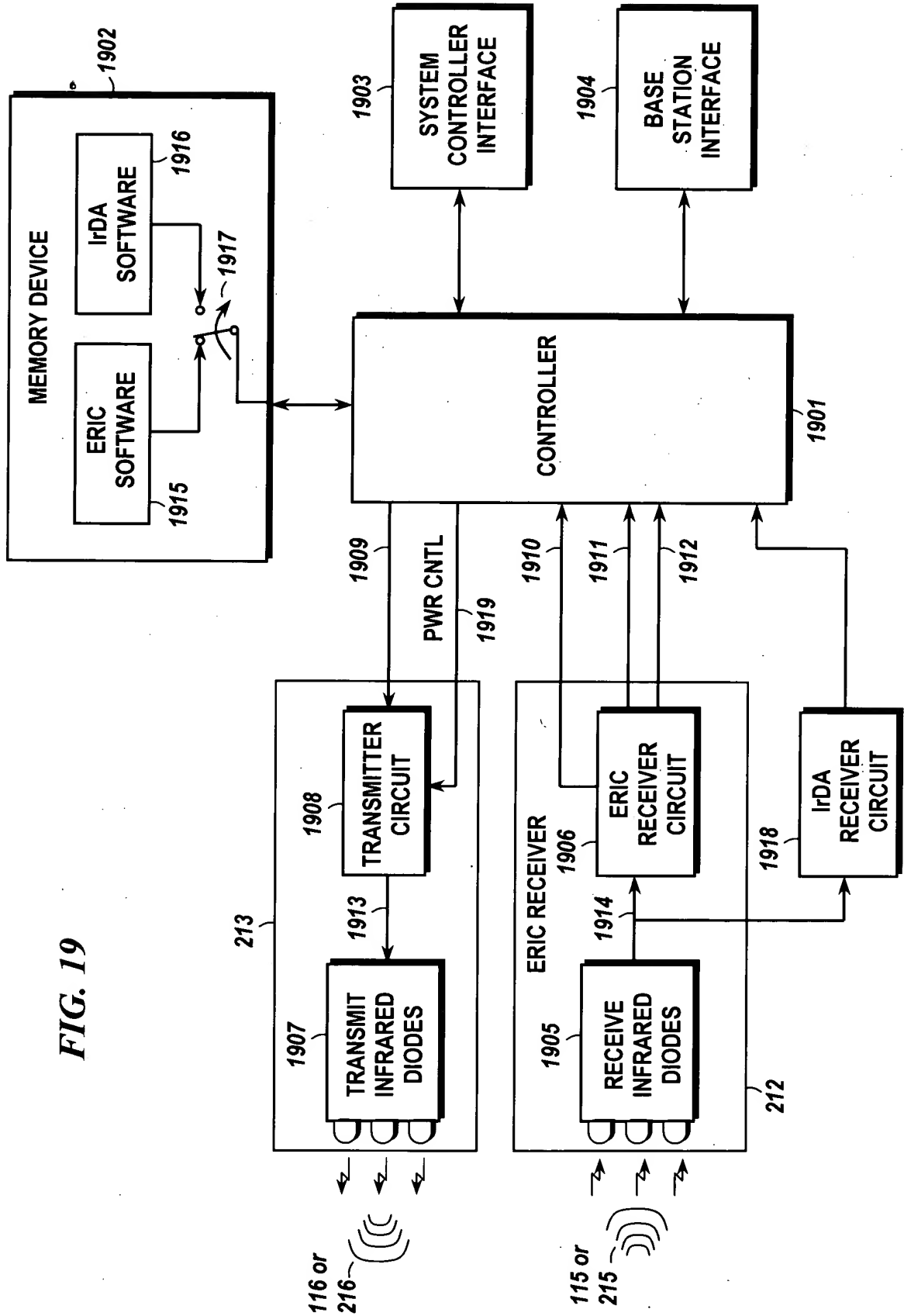


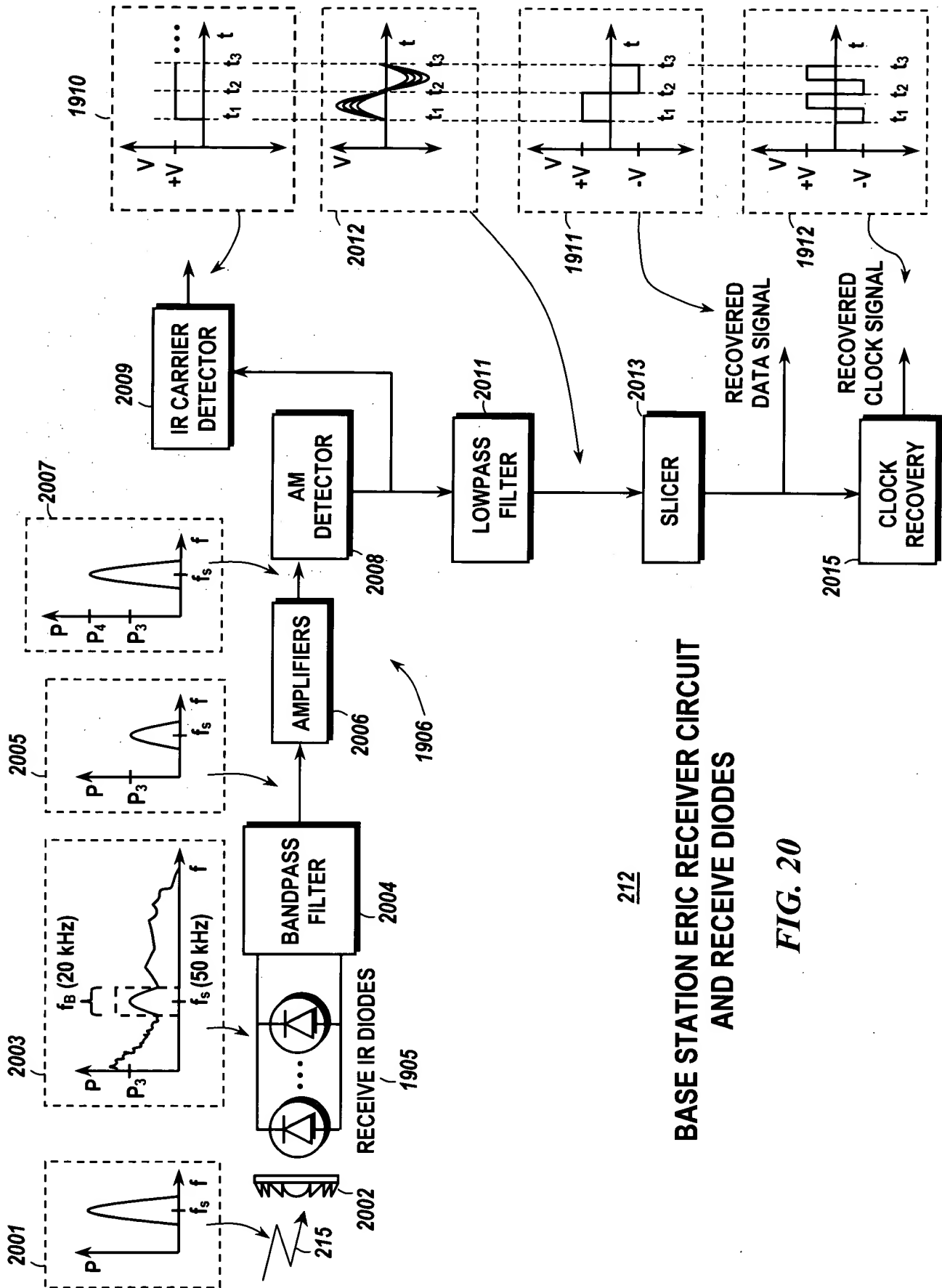
FIG. 18



BASE STATION 202

FIG. 19

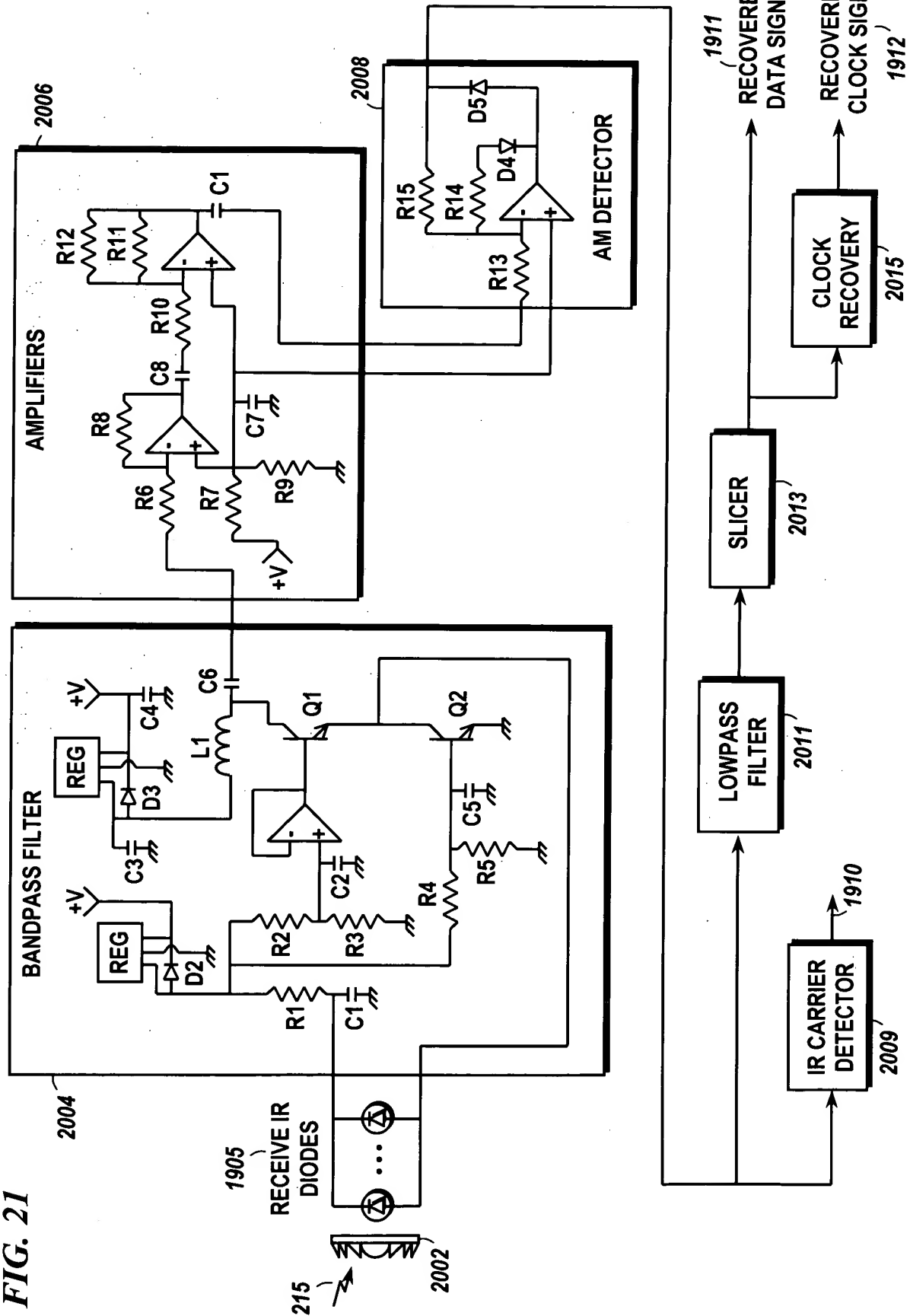


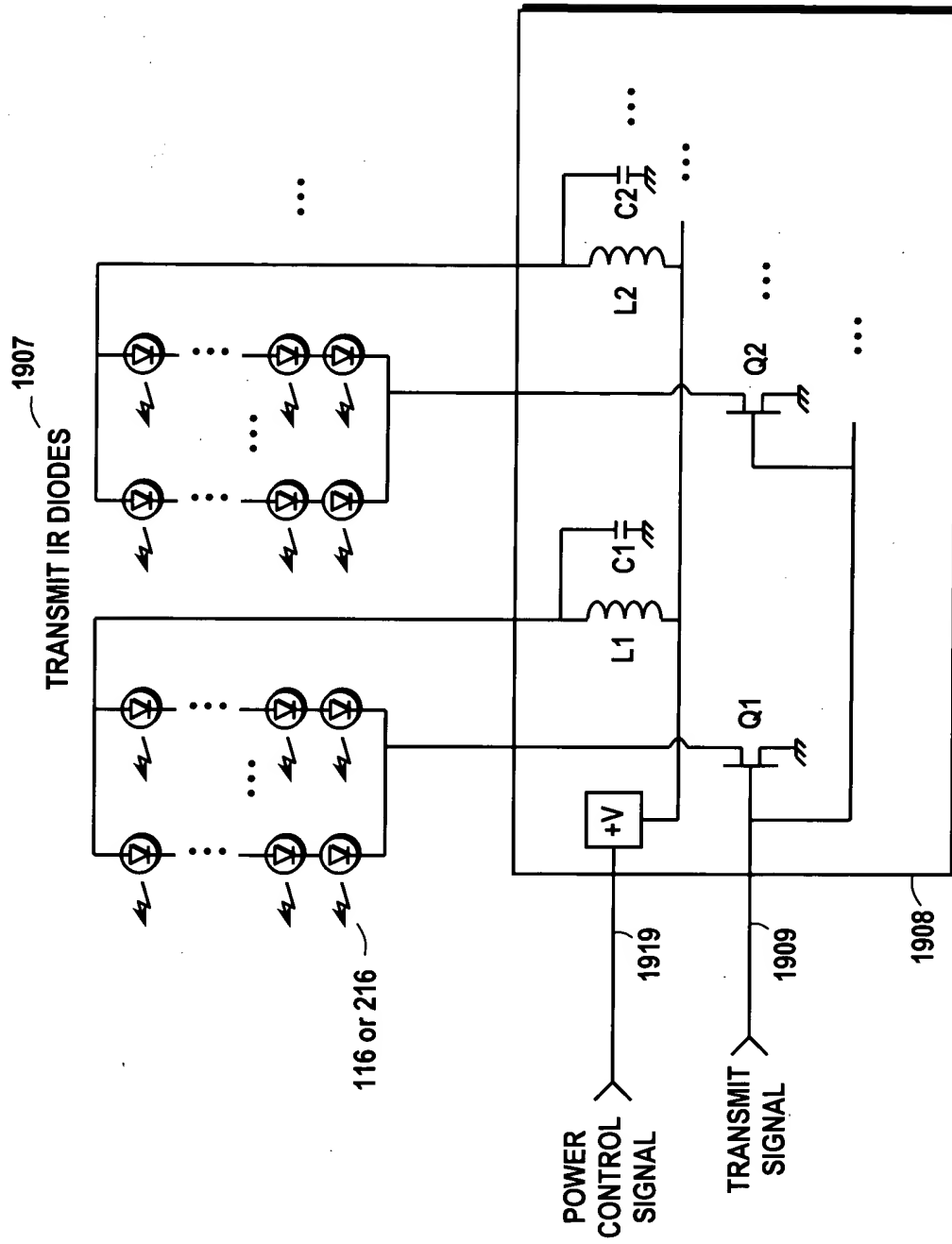


BASE STATION ERIC RECEIVER CIRCUIT  
AND RECEIVE DIODES

FIG. 20

FIG. 21  
BASE STATION ERIC RECEIVER CIRCUIT SCHEMATIC





## BASE STATION TRANSMITTER CIRCUIT AND TRANSMIT IR DIODES

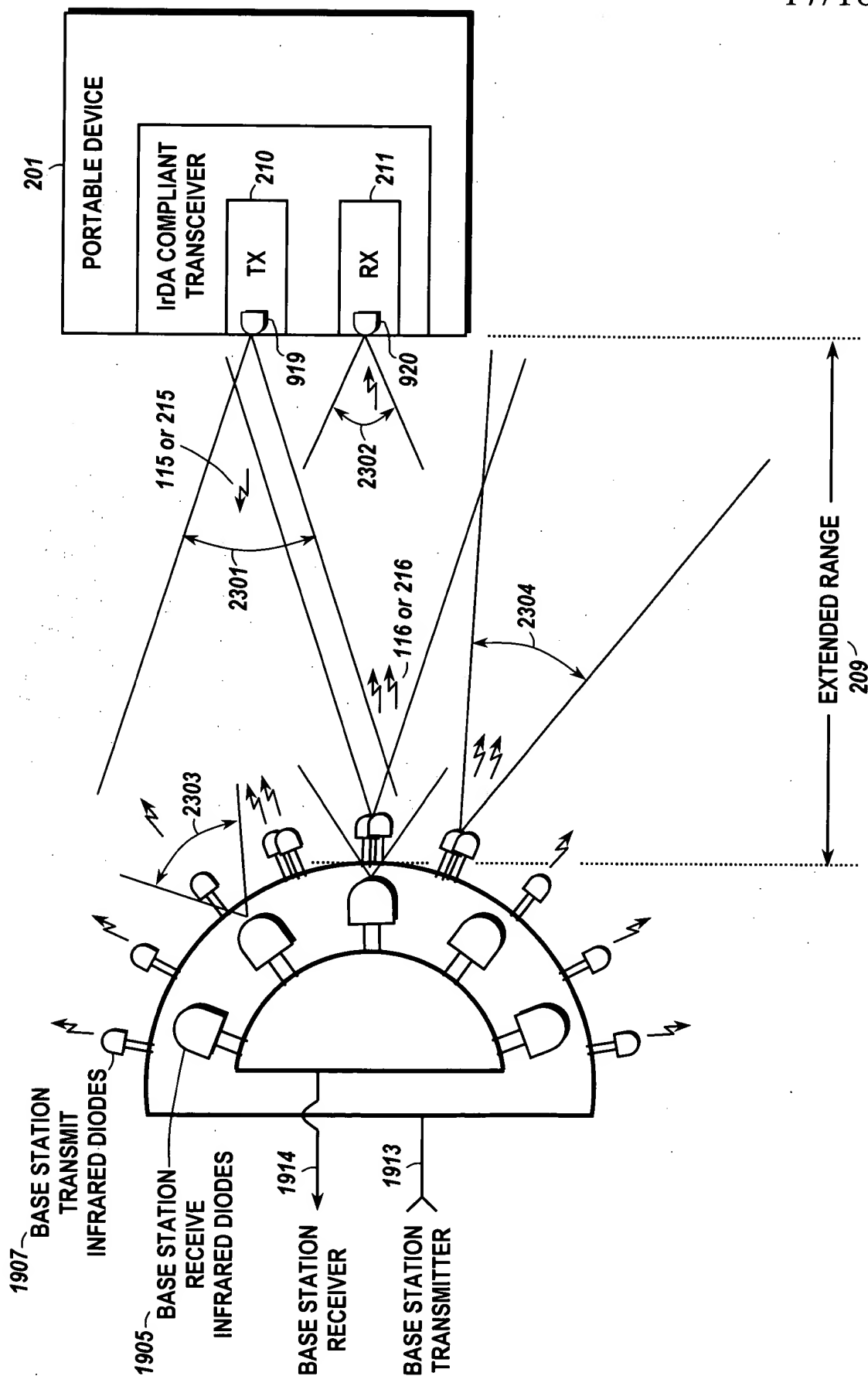
**FIG. 22**



FIG. 23

PHYSICAL LAYOUT

2300



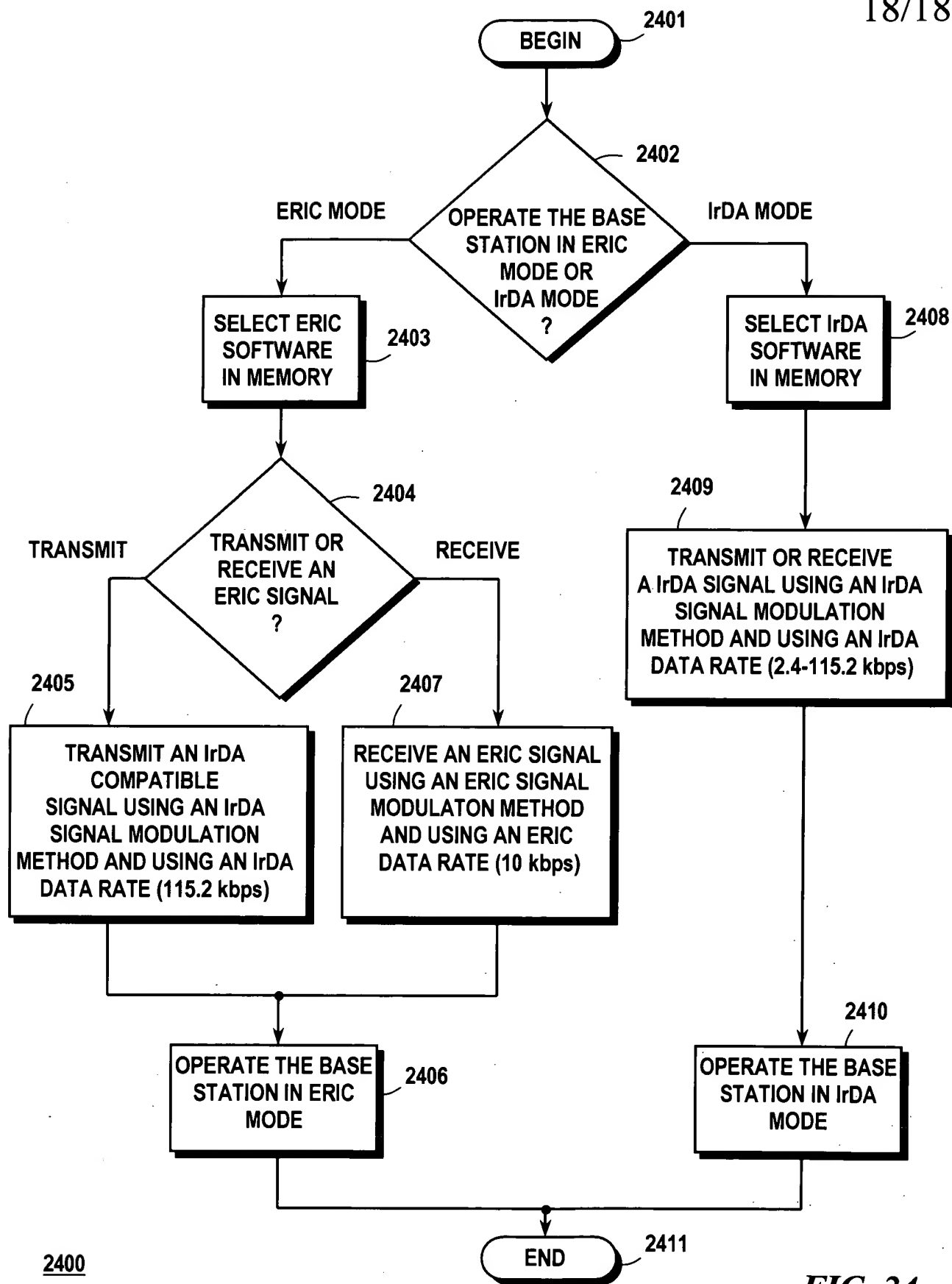


FIG. 24